

## 13

7. A method according to claim 5, wherein said traffic channels are distinguished from each other by different Walsh functions.

8. A method according to any one of claims 1,2,3,4,5, or 7, further comprising

allocating said at least two parallel traffic channels for a high-speed data transmission only in one direction from the base station to the mobile station.

9. A method according to any one of claims 1, 2, 3, 4, 5, or 7, wherein the measured characteristics of the data signal received at the mobile station include at least one of signal level and quality.

10. A method according to any one of claims 1, 2, 3, 4, 5, or 7, wherein the measured characteristics of the data signal received at the base station include at least one of signal level and quality.

11. A handover method in a mobile telecommunications system said method comprising:

allocating to a mobile station at least two parallel traffic channels for high-speed data transmission over a radio path between the mobile station and a base station of a fixed radio network;

measuring characteristics of a received data signal at the mobile station in each of said allocated traffic channels; and

making a handover decision on the basis of at least one of (a) a combination of measurement results of two or more of said allocated traffic channels, and (b) a measurement result of the poorest one of said allocated traffic channels.

12. A method as claimed in claim 11, further comprising: assigning to the mobile station a parallel control channel common to all of said allocated traffic channels; and transmitting a combination of measurement results of all the traffic channels from the mobile station to the fixed radio network through said parallel control channel.

13. A method as claimed in claim 11, further comprising: assigning to the mobile station a dedicated parallel control channel for each of said allocated traffic channels; and transmitting the measurement results of each of said allocated traffic channels separately from the mobile station to the fixed radio network through the dedicated parallel control channel of the respective allocated traffic channel.

14. A method according to claim 11, wherein said mobile telecommunication system is a code division multiple access (CDMA) system, and said traffic channels are CDMA traffic channels.

15. A method according to claim 14, wherein said CDMA traffic channels are distinguished from each other by different spreading codes.

16. A method according to claim 14, wherein said traffic channels are distinguished from each other by different Walsh functions.

17. A control arrangement in a mobile telecommunications system for transmitting to a mobile data station and a base station of a fixed radio network, said arrangement comprising:

the fixed network being arranged to allocate to a mobile station at least two traffic channels for high-speed data transmission;

the mobile station being arranged to measure characteristics of a received signal in each of said allocated traffic channels; and

the fixed radio network being arranged to control the transmission power of the base station and/or to make

## 14

a handover decision on the basis of at least one of (a) a combination of measurement results of two or more of said allocated traffic channels, and (b) a measurement result of the poorest one of said allocated traffic channels.

18. An arrangement as claimed in claim 17, wherein the mobile station has a parallel control channel common to all of said allocated traffic channels, and wherein the base station is arranged to measure the characteristics of the received signal, and wherein the fixed radio network is arranged to control the transmission power of the mobile station through said parallel control channel.

19. An arrangement as claimed in claim 17, wherein the mobile station has a dedicated, parallel control channel for each of said allocated traffic channels, and wherein the base station is arranged to measure the characteristics of the received signal, the fixed network is arranged to control the transmission power of the mobile station through all of said control channels.

20. An arrangement as claimed in claim 17, wherein the mobile station has a dedicated, parallel control channel for each of said allocated traffic channels, and wherein the base station is arranged to measure the characteristics of the received signal and wherein the fixed network is arranged to control the transmission power of the mobile station through one of said control channels.

21. An arrangement according to claim 17, wherein said mobile telecommunications system is a code division multiple access (CDMA) system, and said traffic channels are CDMA traffic channels.

22. An arrangement according to claim 21, wherein said CDMA traffic channels are distinguished from each other by different spreading codes.

23. An arrangement according to claim 21, wherein said traffic channels are distinguished from each other by different Walsh functions.

24. An arrangement according to any one of claims 17, 18, 19, 20, 21, 22, or 23, wherein the network is arranged to allocate said at least two parallel traffic channels for high-speed data transmission only in one direction from the base station to the mobile station.

25. A mobile telecommunications system, comprising: a plurality of mobile stations; a plurality of base stations; and a high-speed data transmission mode having at least two parallel traffic channels allocated for high-speed data transmission from respective said base station to respective said mobile station, and a single control channel for controlling a transmission power of respective said mobile station from respective said base station, said at least two parallel traffic channels being allocated for a high-speed data transmission only in one direction from the base station to the mobile station.

26. A system according to claim 25, wherein said mobile telecommunications system is a code division multiple access (CDMA) system, and said traffic channels are CDMA traffic channels.

27. A system according to claim 26, wherein said CDMA traffic channels are distinguished from each other by different spreading codes.

28. A system according to claim 26, wherein said traffic channels are distinguished from each other by different Walsh functions.

29. A method for power control in a mobile telecommunications system, said method comprising:

allocating at least two parallel traffic channels for high-speed data transmission over the radio path in direction from a base station of a fixed radio network to a mobile station;